Jane Dee Hull
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 W. Washington • Phoenix, Arizona 85007
(602) 771-2300 • www.adeq.state.az.us

Stephen A. Owens
Director

Quality Assurance Project Plan Review

(NOTE: This QAPP was reviewed in accordance with the October 1998 *EPA Requirements For Quality Assurance Project Plans (QA/R-5)* .

Project:

DEFICIENCIES (Note: Please see attached pages for a description of the categories of deficiencies checked on the table below)

	Title & Approval Sheet		Analytical Methods
	Table of Contents		Quality Control
	Distribution List		Instrument/Equipment Testing
	Project/Task Organization		Instrument Calibration & Frequency
	Problem Definition/Background		Inspection/Acceptance for Supplies
	Project/Task Description		Data Acquisition (Non-Direct)
	Data Quality Objectives		Data Management
	Special Training/Certification		Assessments & Response Actions
	Documentation & Records		Reports to Management
	Sampling Process Design		Data Review, Validation & Verification
	Sampling Method		Validation and Verification Methods
	Sample Handling		Reconciliation with User Requirements

CONCLUSION / RECOMMENDATION FOR THIS QAPP

	Acceptable		Unacceptable; requires minor revisions		Unacceptable; requires major revisions

Printed on recycled paper

Northern Regional Office
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004
(520) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

CODES USED IN FOLLOWING TABLE

IA: Included and acceptable
NI: Not included
IU: Included and unacceptable
NA: Not applicable

	IA	NI	IU	NA	Page	Comments
A1. Title & Approval sheet						
Title						
Organization's name						
Dated signature & phone number of project manager						
Dated signature & phone number of QA officer						
Other signatures & phone numbers as needed						
A2. Table of Contents						
A3. Distribution List						
A4. Project/Task Organization						
Identifies key individuals & responsibilities (data users, decision makers, project QA Manager, Subcontractors, etc.)						
Organization chart shows lines of authority & reporting responsibilities						
A5. Problem Definition/ Background						
Clearly states problem or decision to be resolved						
Historical & background information						
A6. Project/Task Description						
Lists measurements to be made during the course of the project.						
Cites applicable technical, regulatory, or program-specific quality standards, criteria, or objectives						
Notes special personnel or equipment requirements						
Describe the assessment techniques needed for the project						
Provides work schedule						
Notes required project & QA records/reports						
A7. Quality Objectives & Criteria for Measurement Data						
States project objectives & limits, both qualitatively & quantitatively						
States & characterizes measurement quality objectives as to applicable action levels or criteria						
A8. Special Training Requirements/Certification						
ADHS licensed labs/HAZWOPER training/DOT requirements for moving hazardous materials offsite						

A9. Documentation & Records						
List information & records to be included in data report to ADEQ						
States requested lab turnaround time						
Gives retention time & location for records & reports						
B1. Sampling Process Design (Experimental Design)						
Types & numbers of samples required						
Sampling network design & rationale for design						
Sampling locations & frequency of sampling						
Sample matrices						
Classification of each measurement parameter as either critical or needed for information only						
Validation study information, for non-standard situations						
B2. Sampling Method Requirements						
Identifies sample collection and preparation procedures.						
Describe decontamination procedures and materials						
Explain how investigatively derived wastes (IDW) will be handled.						
Describe sampling equipment, preservation, and holding time requirements.						
Identifies individuals responsible for corrective action						
B3. Sample Handling & Custody Requirements						
Notes sample handling requirements						
Notes chain of custody (COC) procedures						
B4. Analytical Methods Requirements						
Identifies analytical methods to be followed (with all options) & required equipment						
Provides validation information for non-standard methods						
Identifies individuals responsible for corrective action						
B5. Quality Control (QC) Requirements						
Identifies QC procedures & frequency for each sampling, analysis, or measurement technique, as well as associated acceptance criteria & corrective action.						
References procedures used to calculate QC statistics (precision, bias & accuracy)						
B6. Instrument/Equipment Testing, Inspection & Maintenance Requirements						
Describes field equipment needing calibration & state frequency for such calibration (balances, thermometers, pumps, etc).						

Identifies acceptance testing of field sampling & measurement systems						
Notes availability & location of spare parts						
B7. Instrument Calibration & Frequency						
Identifies field instrumentation needing calibration & frequency for such calibration (pH, specific conductivity meters, PID, XRF, etc).						
Notes required calibration standards and/or equipment						
Cites calibration records & manner traceable to equipment						
B8. Inspection/Acceptance Requirements for Supplies & Consumables						
States acceptance criteria for supplies & consumable						
Notes responsible individuals						
B9. Data Acquisition Requirements for Non-Direct Measurements						
Identifies type of data needed from non-measurement sources (e.g. computer data bases & literature files) along with acceptance criteria for their use						
Describes any limitations of such data						
B10. Data Management						
Describes standard record keeping & data storage & retrieval requirements						
Checklist of standard forms attached to QAPP						
Describes data handling equipment & procedures used to process, compile, and analyze data (e.g., required computer hardware & software)						
C1. Assessments & Response Actions						
Lists required number, frequency & type of assessments, with approximate date & names of responsible personnel						
Identifies individuals responsible for corrective action						
C2. Reports to Management						
Identifies the preparer, recipients and frequency of reports						
Identifies the contents and distribution of reports.						
Project Status						
Results of performance evaluations (PE) & audits						
Results of periodic data quality assessments						
Any significant QA problems						
D1. Data Review, Validation, & Verification						
States criteria for accepting, rejecting, or qualifying data						
Includes project-specific calculations or algorithms						

D2. Validation & Verification Methods						
Describes process for data validation & verification						
Identifies issue resolution procedure & responsible individuals						
Identifies method for conveying these results to data users						
D3. Reconciliation with User Requirements						
Describes process for reconciling with DQOs & reporting limitations on use of data						